

WHAT IS CLAIMED:

1. Apparatus for use in preparing a biological specimen sample, comprising:

- 5 a specimen filter;
 a container for holding the filter; and
 a data storage device associated with the container,
 wherein data related to the filter is stored in the data
storage device.

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2. The apparatus of claim 1, comprising a plurality of filters,
the container holding the plurality of filters , and the data
storage device storing data related to the plurality of filters.

15 3. The apparatus of claim 1, the container comprising a tray.

4. The apparatus of claim 1, the filter comprising a liquid-
based filter.

20 5. The apparatus of claim 1, the data storage device comprising
a read only memory.

6. The apparatus of claim 1, the data storage device comprising
a read/write memory.

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7. The apparatus of claim 1, the data storage device being attached to a surface of the container.

8. The apparatus of claim 1, the container defining a recess,
5 the data storage device being positioned in the recess.

9. The apparatus of claim 8, the recess being generally symmetrical.

10 10. The apparatus of claim 8, a width or height of the recess being tapered.

11. The apparatus of claim 1, the stored data indicating a test or combination of tests that are compatible with the filter.

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12. The apparatus of claim 1, the stored data indicating a specimen that is compatible with the filter.

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13. The apparatus of claim 1, the stored data indicating whether the filter has expired.

14. The apparatus of claim 1, the stored data indicating a
25 number of processing steps involving the filter or the specimen.

15. The apparatus of claim 1, the stored data indicating one or more parameters of processing steps involving the filter or the specimen.

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16. The apparatus of claim 1, the stored data comprising a unique registration number of the data storage device.

17. The apparatus of claim 1, the filter comprising a
10 cytological filter.

18. System for preparing a biological specimen sample, comprising:

a specimen filter;

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a container for holding the filter;

a data storage device associated with the container;

a processor; and

a communications interface coupled to each of the data
20 storage device and the processor, wherein

data related to the filter is stored in the data storage device and can be retrieved there from by the processor through the communications interface.

19. The system of claim 18, comprising a plurality of filters, the container holding the plurality of filters, and the data storage device storing data related to the plurality of filters.

5 20. The system of claim 18, the container comprising a tray.

21. The system of claim 18, the filter comprising a liquid-based filter.

10 22. The system of claim 18, the data storage device comprising a read only memory.

23. The system of claim 18, the data storage device comprising a read/write memory.

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24. The system of claim 18, the data storage device being attached to a surface of the container.

25. The system of claim 18, the container defining a recess, the
20 data storage device being positioned in the recess.

26. The system of claim 25, the recess being generally symmetrical.

27. The system of claim 25, a width or a height of the recess being tapered.

28. The system of claim 27, the tapered recess being configured
5 to receive the communications interface.

29. The system of claim 18, the processor having a housing, wherein the container is positioned in the processor housing.

10 30. The system of claim 18, the stored data indicating a test or a combination of tests that are compatible with the filter.

31. The system of claim 18, the stored data indicating a specimen that is compatible with the filter.

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32. The system of claim 18, the stored data indicating whether the filter has expired.

33. The system of claim 18, the stored data indicating a number
20 of processing steps involving the filter or the specimen.

34. The system of claim 18, the stored data indicating one or more parameters of processing steps involving the filter or the specimen.

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35. The system of claim 18, the stored data comprising a unique registration number of the data storage device.

36. The system of claim 18, the communications interface
5 comprising a serial data interface.

37. The system of claim 18, the communications interface comprising a mechanical interface.

10 38. The system of claim 18, the communications interface comprising a wireless interface.

39. The system of claim 18, wherein the specimen is housed in a vial, and the vial and the filter each include a respective code.
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40. The system of claim 39, further comprising a plurality of interface, respective interfaces being configured to read respective codes of the vial and the filter into the processor.

20 41. The system of claim 40, the respective codes comprising bar-codes.

42. The system of claim 40, the respective interfaces comprising electro-optical interfaces.
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43. The system of claim 18, the filter comprising a cytological filter.

44. Method of preparing a biological specimen sample,
5 comprising:

associating a data storage device with a container that holds a filter;

storing data related to the filter to the data storage device;

10 retrieving the stored data from the data storage device; and
utilizing the retrieved data in connection with preparing the sample.

45. The method of claim 44, wherein utilizing further comprises
15 determining whether the filter is compatible with a test.

46. The method of claim 44, wherein utilizing further comprises determining whether the filter is compatible with the specimen.

20 47. The method of claim 44, wherein utilizing further comprises determining whether the filter has expired.

48. The method of claim 44, wherein utilizing further comprises determining a number of steps involved in preparing the sample.

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49. The method of claim 44, wherein utilizing further comprises determining parameters of steps involved in preparing the sample.

50. The method of claim 44, the filter comprising a cytological
5 filter.

51. Apparatus for preparing a biological specimen sample, comprising:

a specimen filter; and
10 a data storage device associated with the filter,
wherein data related to the filter is stored in the data storage device to indicate whether the filter has been utilized.

52. The apparatus of claim 51, wherein a slide processor
15 determines whether the filter was previously utilized based on the data in the data storage device.

53. The apparatus of claim 53, wherein the slide processor compares previously stored data and data stored in the data
20 storage device of the filter.

54. The apparatus of claim 53, wherein the slide processor compares data from the filter and data from a specimen vial.

55. The apparatus of claim 53, wherein a unique number or code of the data storage device indicates a filter that has not been utilized.

5 56. The apparatus of claim 51, the filter comprising a cytological filter.